

ON THE
ABSOLUTE NECESSITY
OF
ENCOURAGING,
INSTEAD OF
PREVENTING OR EMBARRASSING
THE
STUDY OF ANATOMY;
WITH A PLAN

TO PREVENT
Violating the Dormitories of the Defunct.

ADDRESSED TO THE
LEGISLATURE OF GREAT BRITAIN.

BY
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ON THE

ABSOLUTE NECESSITY

OF ENCOURAGING

THE STUDY OF ANATOMY.

WHEN prejudices and errors are likely to operate against mankind in general, it becomes the indispensable duty of every man, capable of giving useful information, to freely deliver his sentiments. Whatever is likely to obstruct the progress of medical science, deserves the serious attention of every practitioner in medicine. Anatomy is allowed by every learned man in the profession, to be the most useful and certain of any the surgeon or physician studies; it reduces to actual demonstration, what was formerly obscure and ambiguous; it teaches the doctrines and uses of all the parts of the human body, secures to the surgeon a confidence in all operations, and to the physician the power of distinguishing diseases, with all their varieties, causes, and probable consequences.

The legislature of Great Britain, and the public in general, therefore, should be informed of the necessity of encouraging, instead of impeding anatomical studies.*

* It may be solemnly asserted, that anatomical scrutiny is carried on, in general, with the greatest decorum and circumspection; the scrutinised parts of the defunct are generally buried, unless preserved for skeletons or other demonstrative purposes. What surgeon would be skilfully able to reduce fractures or dislocations without an accurate knowledge of the bones, joints, muscles, ligaments, &c.? How could fractures of the skull be treated without a knowledge of the bones of the head, their sutures, &c.? How could the wounded soldier or sailor have balls, or extraneous bodies extracted, or the lacerated wounds of the latter be treated judiciously, if surgeons did not previously know and reflect on the course of the large vessels, nerves, muscles, tendons, &c. in the necessary dilatations of gun-shot wounds, and all operations? Is the brave soldier or sailor, after the well-fought battle, to be left a sacrifice to the ignorance of uninformed surgeons, or rather pretenders to surgery? There have lately been poured forth lamentable complaints on this subject; and to what can this be attributed, but the true cause, the want of due encouragement and opportunities of becoming expert anatomists and practical surgeons, before young artists are sent into the service? One of the greatest objections to the medical education at Edinburgh, where are many ingenious professors, is, the want of subjects for anatomical dissection, without which, no person, however ingenious and learned in other respects, can be a skilful practical surgeon or physician. Indeed, to speak truth, universities are not the best places for acquiring medical knowledge; but large cities, where the observations of numbers of practitioners concentrate, and, as it were, form one useful whole, that adds to our daily stock of knowledge. For anatomy clears up doubts, purges the mind from all visionary or fanciful prejudices, penetrates and discovers the fallacy of various hypotheses and injurious systems. With that knowledge the art of physic is a blessing, without it a pest or curse to mankind.

On the general Utility of Anatomy.

No medical or chirurgical author can be understood without a previous acquaintance with anatomy. Surgery, that inestimable art, on the skilful administration of which, the lives of all ranks, from the highest to the lowest, the soldier and the sailor, frequently depend, would be totally incapable of performing its salutary functions without the safe guide of anatomical science. From the common operation of bleeding, to the higher and more difficult operations of surgery, the knowledge of anatomy guides the hand of the artist, to avoid fatal errors, and ensure probable success. In those moments of alarm and danger attendant on childbirth, where frequently both infant and mother must perish in difficult labour, a skilful artist, fraught with previous anatomical knowledge and reflection, frequently saves the lives of both. An ignorance in anatomy, therefore, must produce ignorance in the practice of surgery, midwifery, and physic; an ignorance in these may prove fatally destructive to every individual at one time of life or other; for who can with truth declare, while men are liable to sickness, accidents, or wounds in war, that he shall be exempted from requiring medical assistance? The human sacrifices to ignorance in anatomy must have been innumerable in former ages, and if anatomical pursuits be, by law, prevented or abridged, barbarous ignorance must again return, and all mankind suffer from the officious, though well-intentioned projects of the uninformed few.

A knowledge of anatomy cannot be acquired by reading books, by studying impressions from copper plates, by hearing lectures, nor by viewing anatomical preparations. A superficial acquaintance of the parts of the human body may be obtained by these means conjointly; but superficial knowledge is by no means sufficient for medical science, and much less for the operations of surgery. No; the student who would wish to discharge his duties with a conscientious rectitude, must repeatedly, with his own hands, dissect dead human bodies; must breathe for many months in the unpleasant, and frequently destructive air of a dissecting room; he must risk his own life to be serviceable to others; and frequently some of the brightest ornaments of the profession have fallen victims to their ardour in these necessary, though horribly disagreeable pursuits*. Nothing but a laudable ambition for excellence; nothing but a determined resolution to brave all dangers; nothing but an abhorrence of ignorance, could induce men to sit up whole days and nights in pursuit of those researches, of which, all the world, except them-

* In these pursuits, a slight scratch on the finger of the dissector has absorbed putridity sufficient to rapidly prove fatal. *Magnus Falconar*, who dissected at my house, when I taught anatomy and surgery, above twenty years ago, used to sit up whole weeks in pursuit of his favourite object, anatomy. He died very early in life, after arriving at an uncommon degree of excellence. The ingenious Mr. Hewson, Dr. Walsh, a promising young physician, Dr. Peckwell, and many others, have shared the same fate.

selves, frequently reap the benefit. The inquests for murder or accidental deaths ; the trials of criminals, in many cases, require precise anatomical knowledge, or the guilty might often escape and the innocent suffer.

What impedes the Progress of Anatomy.

The principal impediment to anatomical studies, is the difficulty of obtaining dead human bodies to dissect. There is no power in the medical profession of England, as in other countries, to insist on the inspection, after death, of those extraordinary cases of diseases that occur in practice, which might be the most eligible means of preserving the health, and saving the lives of the living. In this country, narrow prejudices must be banished, liberality and science embraced, the people mildly informed of how much consequence it is to themselves and posterity, to suffer anatomical investigations to be more frequently practised, that those who live may benefit by the dead.* The present improved state of surgery, the most satisfactory principles for the practice of physic, the most indubitable conclusions from inductive reasoning, all originate in anatomy. Anatomy exhibits facts after death ; just reasoning discovers the causes as they happened in life ; past

* I have, during my whole life of medical study, seized all opportunities to obtain anatomical facts ; from being convinced, after long experience and reflection, that it is the most rational and decided mode of obtaining an accurate knowledge of diseases and their effects.

experience on the powers and effects of medicine in various diseases, united with the former *data*, determines the *quid est agendum*, in every difficult case of disease.

The attainment, therefore, of all this useful knowledge forms the able physician; but if anatomy had never been cultivated, if that demonstrative art had not been protected by royal authority, and well-regulated governments, excellent physicians, or surgeons, never could have appeared; the different branches of the art would have remained in their former miserable state, and mankind, labouring under the most serious diseases, left a prey to ignorance, artifice, and imposture. Can any human being, after a knowledge of this true state of facts, wish to obstruct the progress of a science, in which the welfare of all society is so materially concerned, so importantly interested? *

The

* A passage from the *Rational and Improved State of Physic*, I lately published in four volumes, containing the causes and cure of nervous bilious diseases, with many other interesting subjects of medicine, surgery, &c. will shew the present writer's opinions on the art of medicine.

“ As the modes of reasoning adopted by the author, in many parts of these works, may appear new, particularly to those who are not accustomed to reason logically, it may be necessary to give a short explanation of the manner in which the reasonings are conducted.

“ Mathematical, geometrical, mechanical, and many chemical hypotheses, formerly and lately in vogue for constructing the various and visionary theories in medicine, in a great measure, are excluded, and facts, originating from the evidence of the senses, from ocular demonstrations, are exhibited to explain the *causes* of

The laws punish ignorance in medicine and surgery; the ignorant pretender is hindered from
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of diseases, and to search for adequate remedies to remove those causes.

First. The anatomical structure and physiology of the parts or functions, are explained in different treatises, by connected facts and reasonings, as far as were thought expedient.

Secondly. From the appearances after death, the impediments and morbid affections, that had happened in life, are attempted to be ascertained by inductive reasonings.

Thirdly. Propositions from these sources of true intelligence are formed, in many instances, both theoretical and practical.

Fourthly. From considering the origin and magnitude of diseases, explained by the foregoing means, their stages, real and probable effects in the living human body, are all the prognostics discovered, and what benefits may be expected from the art of medicine in various diseases; by which facts and reflections, rational expectations are encouraged, and rash boastings and irrational promises discountenanced; medicine, thus conceived, and practised, strictly adheres to reason and truth.

Fifthly. By concentrating all the foregoing facts, and considering, from long and past experience, the force, power, and probable consequences of a disease, with its stages, whether it be chronic or acute, the age, sex, strength, and constitution of the individual affected, are ascertained the powers and mode necessary for the removal of the *causes* of disease.

Sixthly. In the election of remedies, those that are important are adopted and prescribed, where they can be exhibited with safety and rationality to the patient, and *palliative* methods of treatment are never proposed, but in cases wherein *radical cures* cannot be with any hope of success attempted.

“ Amongst the great variety of prescriptions for the *robust* and *florid*, *pale* and *debilitated*, *irritable* or more *torpid*, &c. there are few which the author’s own experience has not proved safe and efficacious in the cases, and under the circumstances they are re-

practising the art without undergoing an examination. The Legislature has provided penal laws against ignorance in the medical profession; will it be consistent with wisdom and humanity to prevent the student from becoming learned, and then punish him for involuntary ignorance? Every mode, which can obstruct anatomical study, must induce the grossest ignorance; every invention, which can excite an ardor in students to become excellent anatomists, will be the only means of producing skilful surgeons; the absence of which lately in our armies, though it be a delicate subject to mention, has been owing to the want of dead human bodies to dissect, and for performing the various operations of surgery, previous to practice on the living subject. Whoever does not comprehend the exact course of the vessels, nerves, the directions of muscular fibres, and, in short, anatomy, and who has not practised on dead subjects, so as to well comprehend the resistance of

commended.* It has always been considered the duty of a physician, to act on clear principles and with energy, or not act, and be always more solicitous to attack a disease by efficacious remedies, than to please the patient's taste at the hazard of life, or the injury of the constitution. The ordering trifling saline and sweetened draughts, when disorders demand the most decided and powerful practice, is a disgrace to the art; *sed est modus in rebus.*"

* *There is certainly a great difference in the constitutions of different patients, some abound with serum, others with a superabundance of red particles in the blood, which form the pallid and florid; the fat superabound with oil, the lean not. Will any confined system be adequate to this diversity?*

parts to the different chirurgical instruments necessary in operating, with all the *minutiae*, and accidents common to different operations, will be a timid, rash, or ignorant practitioner, and miserable must be the lot of those who become patients to such an inexperienced, untaught novice. The foundation of all the requisites for successful practice is chiefly in anatomy; the judicious application of which, in human life, is only found in large hospitals, and acquired by practical observations. In the extensiveness of these fields of science, the French are quite superior to us; their hospitals give a latitude for anatomical investigation far above all the countries in Europe.*

* *Louis* the Fourteenth was the grand protector and encourager of the useful arts, and he left monuments of medical learning that render his name immortal. Engaged in wars, this monarch soon found, that *skilful surgeons* were very useful to the state, and accordingly erected public academies, and gave liberal immunities and privileges for the attainment of that and other branches of medical science, which his ancestors, and all other princes, had shamefully neglected. There is no public establishment in this country for anatomy; but the sooner one is established, and the sooner means are devised, for obtaining a sufficient number of dead bodies for dissection, so much the sooner will the *army, navy*, and the whole country, be furnished with excellent surgeons, whose united labours will daily improve the art, and pour down blessings on society.

How to remove the difficulties, which at present exist, in acquiring anatomical knowledge.

The removal of the difficulties, which oppose or impede anatomical science, is easier to be conceived than practically executed.

First. Mankind in general should be convinced of the necessity and utility of practical anatomy, as it is universally beneficial.

Secondly. Those superstitious fears and prejudices, that have excited horror and opposition to the admission of opening dead bodies, for the benefit of the living, should be chased away by the lights of sound reason and truth.*

* It is a curious investigation for philosophic minds to reflect on the various opinions of various ages and countries concerning the bodies of the dead; the Egyptians preserved the bodies of their ancestors, after having them prepared as mummies, and decorated with gilding, varnishing, and painted on their coverings the mystical hieroglyphical figures of their deities, &c. The Greeks, Romans, and other nations, burnt their dead; the English in London often bury their poor, twenty or thirty together, in a vault opening with two folding doors, uncovered even by earth, to the no small annoyance of the neighbourhoods contiguous to church yards. This practice calls aloud for the interference of the legislature; for it has been lately proved, that an halitus, or air arising from the putrefaction of dead bodies thus corrupted in numbers, is the most deleterious of any known by pneumatical experiments. The notions about dead bodies are certainly capricious, as clearly appears by the different opinions of different ages; it must be confessed, that neither the laws nor the dormitories of the defunct should be violated; nor would such violation ever be practised, were rational plans adopted to prevent the commission of these crimes.

Third.

Thirdly. All condemned criminals, after execution, should be delivered to an academy of anatomy, for the sole purpose of instructing students.

Fourthly. The physicians and surgeons of public charities should have an unlimited power to inspect dead bodies, and be obliged to publish their observations, or transmit the same to the academy of anatomy. Public expence should be converted into public benefit.

Fifthly. It is not uncommon for persons of rank to have their nearest relations and friends opened to inspect the causes of death, and to ascertain, whether in life, more might have been done in the attempts to cure, as likewise for the purpose of embalming the body. If such rational inquiries, and the practice of embalming, were more universal, they would tend greatly to promote the future welfare of society. Such examples would be more generally followed, if they became more frequent; and the horrors expressed by the ignorant, or timid, would daily diminish.

Sixthly. The academy of anatomy should be defrayed at the public cost, in which case the students should be exempt from all expence; if not, the emoluments arising from pupils should be appropriated to that purpose.

Seventhly. As it has been found, by long experience, that corporate bodies form individual cabals, and often destroy the laudable intentions of their original institutions, by pursuing private interest, instead of public benefit; the plan for conducting the

the academy of anatomy should be so cautiously arranged, as not to suffer the self-interested to overturn the wise intentions of the learned seminary.

Eighthly. There should be some honourable encouragement to every pupil, who distinguished himself by either industry, or by making any new discovery or valuable improvement, whether in anatomy or practical surgery; for true genius, and the most superlative talents, are often allied to necessitous want. A spirit of emulation would thus incite the parties to labour, and additions to the present stock of knowledge would be the result of inquiries, when thus conducted by a spirit of philosophical research, candour, and liberality.

Ninthly. Every pupil, who dedicates his talents to surgery, after having obtained a sufficient knowledge in anatomy by dissecting, should perform, in the presence of respectable surgeons, all the operations of surgery on the dead body; thus would the fleets and armies be supplied with able surgeons, when every practitioner would be forced to display his knowledge and abilities, before he entered into the service, or practised the art.

Tenthly. Physicians should not only be obliged to dissect and perform the operations, &c. but should be compelled to know theoretical and practical midwifery, and give positive proofs of their knowledge in physiology, &c. It is but just, that those who reside at the head of a profession, should be superior to all those who only practise a particular branch of the art.

Thus

Thus it has been fully proved of what consequence the science of anatomy is to the practice of physic, surgery, and midwifery, to individuals, and to the community of every rank. The impediments to its cultivation, and some general modes of removing them, have been intimated, and it is hoped that the Legislature, and mankind in general, will attentively and seriously consider, and weigh the important truths advanced. Princes and governments cannot shew a more affectionate concern for the welfare of the people than by the encouragement of every branch of knowledge that can alleviate the misery of disease: nor can there be conceived a more wanton barbarity than to check the progress, or frustrate the humane offices of this salutary science.

These observations have not originated in visionary hypothesis, nor chimerical conceits, the offspring of unbridled fancy and inexperience; but from a sincere love of truth, a regard for the honour of the medical profession, and from nearly forty years continued study and practice in the healing art. The reflections are not intended to vindicate, but to prevent or abolish the modes of procuring subjects for anatomical investigation, which shock the feelings of humanity; to apprize the Legislature, and society at large, of the indispensable necessity of enlarging, instead of restraining anatomical studies, and to shew the most eligible mode by which that important object is attainable. Other means might be, likewise, devised, and if any future opportunity should occur, in which
a more

a more elaborate consideration of the subject may be necessary, than appears in the present hasty publication; no labour shall be spared to render the most sensible suggestions permanent; nor shall any thing be omitted, that is likely to prove beneficial to the profession, or to the advantage of society in general. An impulse above private interest, narrow censures, or the superficial opinions of those who carry through life the infantile impressions of the nursery, has given rise to these animadversions. It would have been criminal to have withheld useful intelligence on a subject in which the whole world is interested, and, in particular, the honour and wisdom of the legislature of Great Britain. The extensive confidence amongst all ranks, the author hath enjoyed, as a medical practitioner, for a long period, demands this tribute of gratitude to the nation, whatever may be the consequence. The whole study of medicine requires regeneration to render it more useful to society; the universities, in particular, require renovation in most departments of science; the paths to all human knowledge might be abridged and rendered easy of access, were ancient prejudices abolished, and modern discoveries and improvements universally adopted.*

It

* Perceiving, early in life, great defects in medical education, it occurred to me that the modes were highly improveable, and that the road to science could be rendered much more easy of access. Above twenty-four years ago I formed a plan, and have, as much as my other avocations and temporary practical writings would

It was sincerely hoped that some professional anatomists would have favoured the world with their

would permit, laboured incessantly to accomplish this great object. Two volumes in quarto, written in Latin, that its benefits may be more universal, are now ready for publication: in the anatomical part of which are above 60 copper plates, with references, on an entire new plan, to facilitate the study of anatomy, &c. This work, which has been executed at an immense expense for a private individual, who has no other fortune than his profession, it is hoped will, in some measure, diminish the necessity of procuring so many bodies for dissection; but yet, it is a certain fact, confirmed by experience, that real dissections are absolutely necessary; for a pupil will comprehend and retain more by his own practical inspection of even one or two bodies, than by attending lectures, or reading for years. Dissection leaves an impression in the mind never to be effaced, and the plan of the books mentioned, has been, as nearly as possible, formed to refer to on all occasions, to remember what has been practically taught in the dissecting room. The general rules delivered for dissection in these works are as follows, by which the learned will perceive, that cleanliness and decency are its prominent features, not wanton barbarity, as persons unacquainted with its rules may suggest.

De generalibus quibusdam præceptis in dissectionibus tenendis.

1. Ad dissectiones nemo, nisi qui medicinæ aut chirurgiæ se dicavit, admittatur.
2. Tempus administrationibus anatomicis eligatur hyems.
3. Cadaver autem primo ab omni impuritate mundandum est.
4. Locus administrationis frigidus sit.
5. Locus, in quo peragitur sectio luminosus sit.
6. Cadaver mensæ versatili imponatur; ut mensa circumacta, omnibus omnia ostendi queant.
7. Manus in operando suspensa teneatur.
8. Humiditates spongia sæpius exsorbeantur.
9. Tandem finito labore diurno, cadaver studiosè contegendum.

Schola Medicinæ Universalis Nova, p. 2.

scanti-

sentiments on the present important occasion ; their experience and interests in the promotion of the science they teach, might have added great weight to the arguments here presented. Of all the teachers who deserve the commendation of society in the medical art, the professors of anatomy certainly should hold the highest rank ; long may their labours continue to serve mankind. As these learned gentlemen have not appeared publicly on the present momentous business, perhaps from motives of delicacy, a man who has no private views or personal interests to answer, steps forth a volunteer to defend the honour of the medical profession, and to ultimately promote the cause of reason and humanity.

Saville Row,

15th April, 1795.

F I N I S.

